

Specification
Rain Bird G-SERIES Automatic Filter Self-Cleaning Filtration System
Omni 401 Controller

1. General
 - a. The filtration system shall contain two automatic self-cleaning screen filter units and a control system.
 - b. The filters shall have X" 150# flanged inlet and outlet connections for a combined filtering capacity of XXX gpm.
 - c. Each filter shall consist of a 316L stainless steel fine screen with a minimum screen area of XXX in² and shall have XXXX micron screen openings.
2. Automatic Self-Cleaning Rinse Cycle
 - a. The filter shall be completely self-cleaning with the cleaning cycle being powered by line pressure only. No external pneumatic or electric motors are required. Continuous system flow shall be maintained during the rinse cycle.
 - b. A rinse cycle shall be initiated by the control system based on differential pressure, timer or manually. A dirt collecting assembly shall sweep the entire screen area to remove accumulated particles and send them to a waste drain through a single 1½" rinse valve on each filter unit.
3. Cleaning Mechanism
 - a. The filter cleaning mechanism will consist of a rotating and linearly moving dirt collector constructed of PVC and 316 stainless steel. By opening the rinse valve, the dirt collector will create high efficiency suction force at each of the cleaning nozzles. The nozzle head shall always remain about 3 mm from the screen element surface to maximize cleaning efficiency during the cleaning cycle.
 - b. The cleaning cycle shall be completed in 12-16 seconds.
 - c. The minimum pressure required for flushing shall be 30 psig (2.1 barg).
4. Housing Construction
 - a. The filter housing shall be of high-grade carbon steel, zinc-phosphate dipped and coated with multi-layer epoxy/polyester or other coatings specified elsewhere.
 - b. The body may also be manufactured of 304 or 316 stainless steel or other materials or alloys as specified.
 - c. The design operating pressure of the body shall be 150 psig (10.3 barg) and the design maximum operating temperature shall be 150°F (65°C) unless specified elsewhere.
 - d. The filter body shall accept interchangeable filter elements with varying micron degrees from 5 to 5000 microns.

5. Drive Mechanism

- a. The dirt collector shall be rotated by a hydraulic motor.
- b. A piston shall move the dirt collector linearly.
- c. The movement created by the rotation of the hydraulic motor and the linear movement of the piston shall cause the dirt collector nozzles to move in a tight spiral motion covering the entire surface area of the screen element.

6. Control System

- a. The control system shall consist of a microprocessor-based controller housed in a water resistant enclosure, a differential pressure switch factory preset for 7 psig and two 24 VAC N.O. 3-way solenoid valves (one for each filter unit).
- b. The controller shall operate on either 115 or 230 Vac, 60/50 Hz single phase power supply. Voltage is selectable by the user.
- c. The controller shall possess an LED to indicate filter mode "Filtering", "Rinsing" or "High DP" that normal rinsing cannot reduce.
- d. The solenoid valve shall include an LED to signify that its coil is energized when illuminated.

7. Approved Manufacturer

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Filters: Model G-SERIES-XXX-XX
Controller: Model OMNI 401

